EUROPA Documentation

This page provides in-depth documentation on understanding and using EUROPA. If you don't know where to start, or just want a quick overview of how to use EUROPA, take a look at the EUROPA Quick Start. You can also find an overview of the EUROPA framework and philosophy at Europa Background.

Architecture

- Overview
- Propagation Services
- Plan Database Services
- Modeling Services
- Problem Solving Services
- Ancillary Modules

EUROPA Components

- NDDL:
    - NDDL Language Reference
    - NDDL CheatSheet
    - Complete NDDL Grammar
    - NDDL Parser/Compiler
- Constraints:
    - Constraint Library Reference
    - Adding a Constraint
- Resources:
    - How to Use and Configure Resources
    - Notes on Using Resource Search Operators
    - Example: Faking a State Resource
- Solver:
    - Built-in Solver Description
    - Built-in Solver Configuration
    - Extending the built-in Solver
    - Building your own Solver
- API
    - There are currently 2 classes that provide access to EUROPA as an engine. See this note on their differences and plans to only expose PSEngine to EUROPA clients, eventually.
        - PSEngine : Client API. This interface is also available in Java (we use SWIG to do the mapping automatically).
        - EuropaEngine : Gives access to the internal interfaces for the EUROPA modules.

    - Doxygen documentation for all the EUROPA classes can be found here.
- Listener
    - Adding a Listener
- Calling your custom C++ code from Java

Development Tools

- How to embed EUROPA in an application
- makeproject: Automatically create all the pieces for a new project.
- High-level visualization and debugging:
    - PSDesktop: Java app to drive (and visualize) EUROPA interactively.
    - PlanWorks: Java app to visualize plan details over time.
        - PlanWorks Tutorial
        - PlanWorks.cfg Reference
- Low-level debugging:
    - Debug Output Management
    - Timelines
    - The Token Network
    - The Constraint Network
    - Metric Resources
    - Common Debugging Scenarios

Miscellaneous

- Glossary
- References
- EUROPA Publications